LORD AECK SARGENT | A KATERRA COMPANY

CONDITION ASSESSMENT

ENGLISH AVENUE SCHOOL

Atlanta, GA

ENGLISH AVENUE SCHOOL

English Avenue, Atlanta, Georgia

CONDITION ASSESSMENT

Prepared for

Westside Development Partners

Prepared by

Lord Aeck Sargent, a Katerra Company

JANUARY 2020

Figure 1: Cover Image: East-facing, main entrance to the building.

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ARCHITECTURAL DESCRIPTION & FEATURE INVENTORY

PROJECT TEAM

Principal In Charge	**Susan Turner**, AIA
Project Manager/ Primary Author	**Charles Lawrence**, MSHP
Project Architect	**Sarah Lockwood**, RA
	Lord Aeck Sargent Atlanta, GA
Property Owner	**Westside Development Partners, LLC**
Owner's Representative	**"Able" Mable Thomas**
	Keven Patterson
	Greenlife Energy Solutions Atlanta, GA
Structural Engineer (Under separate contract)	**Frank Davis**, EIT
	Haight Davis & Associates, Inc. Lawrenceville, GA
Laser Scanning	**Rob O'Dell**
	RePro Products Atlanta, GA

ADMINISTRATIVE DATA

Date of Construction: 1911, additions in 1923

Architect: Edwards & Walter (1911); Daniell & Beutell (1923)

Present Owner: Westside Development Partners, LLC

Historic Use: School

Present Use: Vacant

LOCATION DATA

627 English Avenue, Atlanta, Fulton County, Georgia

Fulton County Property Information

Property ID	14 011200080024
Property Class	C4- Commercial Small Tracts
Neighborhood	C407
Tax District	05Z
Zoning	R5
Acres	3.2

City of Atlanta Property Information

LandLot & District:	14-112
City Council District:	3
NPU:	L
Neighborhood:	English Avenue
Zoning Classification:	R-4A

Westside Tax Allocation District

Block Group 2, Census Tract 118, Fulton County, Georgia-0.7719

RELATED STUDIES

National Register Nomination for the English Avenue School. Draft. Entered into Georgia Register August 2018.

S***tructural Evaluation – English Avenue Elementary School***, Haight Davis & Associates, May 2018.

Phase I Environmental Site Assessment (ESA), MACTEC Engineering and Consulting, Inc., January 7, 2010.

ARCHITECTURAL DESCRIPTION
&
FEATURE INVENTORY

Introduction

Westside Development Partners engaged Lord Aeck Sargent (LAS) to complete a condition assessment and produce programming and schematic design documents for the future rehabilitation of the former English Avenue School.

This document consists of the condition assessment and treatment recommendations. Parallel to developing this document, conceptual programming has also been developed. The treatment recommendations in this report and the results of the programming study will direct the schematic documents.

A conceptual design cost estimate will be included in the final draft of this report.

A Lord Aeck Sargent team assessed and documented the existing conditions of the building in July of 2019. To assist this work and develop a set of accurate base drawings, LAS had the building scanned by RePro products. The scan data was used to build a digital three-dimensional model of the building and produce plan and elevation drawings.

A structural engineering study from May 2018 by Haight Davis and Associates was used to support the findings and recommendations of this report.

Historical Summary

The English Avenue School was recently nominated to the National Register of Historic Places. The nomination form is currently the best source for historic information on the building.

The English Avenue School was first completed in 1911. The building was designed by Atlanta architectural firm Edwards & Walter. Edwards is credited with the design of several Atlanta landmarks, including the Odd Fellows Building and several buildings on the Agnes Scott campus.

In 1923, two wings and an auditorium were completed. The new work was designed by the Georgia firm Daniel & Beutell.

From its completion until 1950, the school served only white students. In 1950, the school board voted to change the enrollment to serve only African-American students. In 1960, in an act of terrorism, a dynamite bomb detonated near the school's Pelham Street (south) entrance, shattering nearby windows.

In 1995 the school was closed due to low enrollment. In 2010 the property was sold to the Greater Vine City Opportunities Program (GVCOP) and for a short time housed a neighborhood health clinic. In 2017 it was conveyed to the Westside Development Partners.

Building Overview

The English Avenue School is composed of four distinct but connected structures: The central mass is the original 1911 3-level brick masonry and wood framed school building; two concrete-framed wings, added in 1923, extend the building north and south; and a brick, structural clay tile, and steel auditorium, also completed in 1923, attaches to the east elevation of the south wing. The main level is a piano nobile with the basement being mostly above grade.

The original, centered entry with projecting exterior vestibule framed by a terra cotta cased Gothic arch is preserved on the west elevation. Centered on the north and south elevations are matching exterior vestibules with Gothic entries into enclosed stairs that extend from the basement to second floor. An additional entry on the east elevation is unadorned, but leads to the same central place on the first floor as the entry on the west side.

The building is predominantly red and darker clinker brick with tan terracotta Academic Gothic detailing. Projecting and recessed elements give the building a sense of complexity which belies a fairly straightforward double-loaded corridor design.

Leaks in the roof have led to catastrophic failure to most of the wood framed portions of the building, including roofs, floors, walls, and ceilings. However, the condition of the primary load-bearing masonry walls and the newer concrete wings is stable. Many interior features are damaged or missing, but enough of the character-defining features remain to provide direction for replication and in-kind replacement.

The proposed program for the building consists of a balance of office and community spaces. The offices will a have flexible design allowing them to fit within the existing and historic configuration. Community spaces consist of workshops and studios on the basement level, the auditorium, and several classrooms or meeting rooms on the first floor.

A potential rooftop penthouse, serving the elevator and building systems, but also functioning as an amenity space is also proposed. The structural implications for the feature have not yet been explored, but the concept has been included in the programming package.

Site

The building is situated on a north-south axis on the southern half of a 3.2-acre property comprising the majority of a city block bounded by four streets; Donald Lee Hollowell Parkway to the north, James P. Brawley Drive to the east, English Avenue to the west, and Pelham Street to the south. The historic English Avenue Carnegie Library, now the offices of a construction company, occupies the very northern edge of the block. The school property includes the extant school building, the sidewalk, an asphalt-paved parking lot, an asphalt-paved play area, and green space immediately surrounding the building to the west, east, and north.

Street level at the intersection of Pelham Street and Brawley Drive is well above the average grade level of the site. Both roads slope down to the average grade at the property's opposite corners. The steep grade change along Pelham and Brawley is mitigated by several retaining walls of various age and material, but is largely a built-up rubble and earthen slope.

There is a large mostly level field in front of the west elevation and to the sidewalk at English Avenue where a concrete block retaining wall runs most of the length of the property along the sidewalk. The field and along the Pelham Road, south of the building have several mature trees.

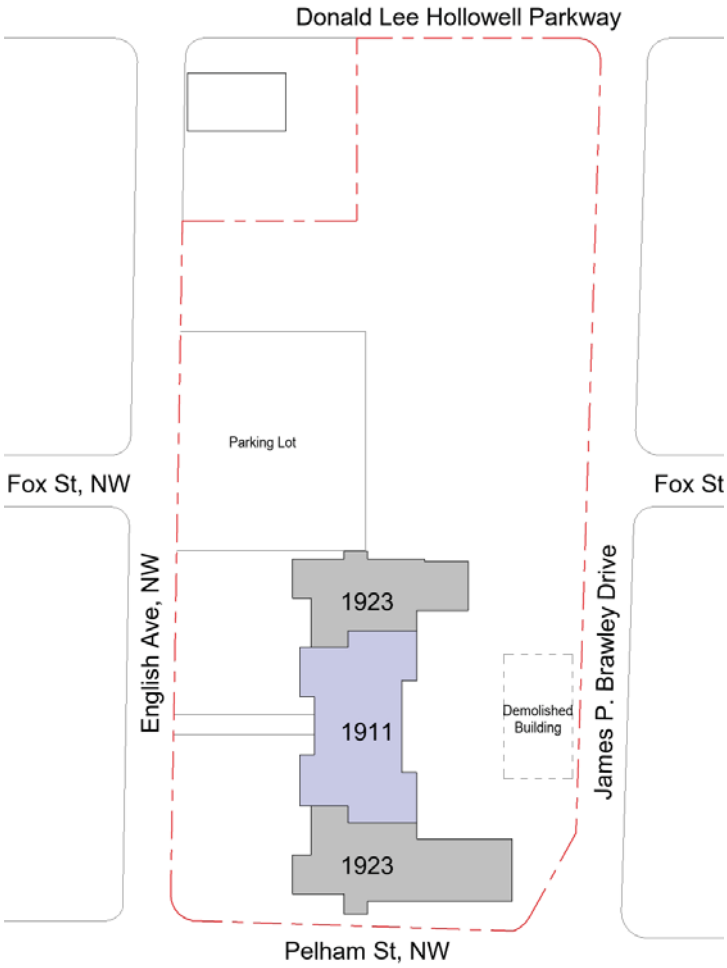

Figure 1. Plan view of existing site.

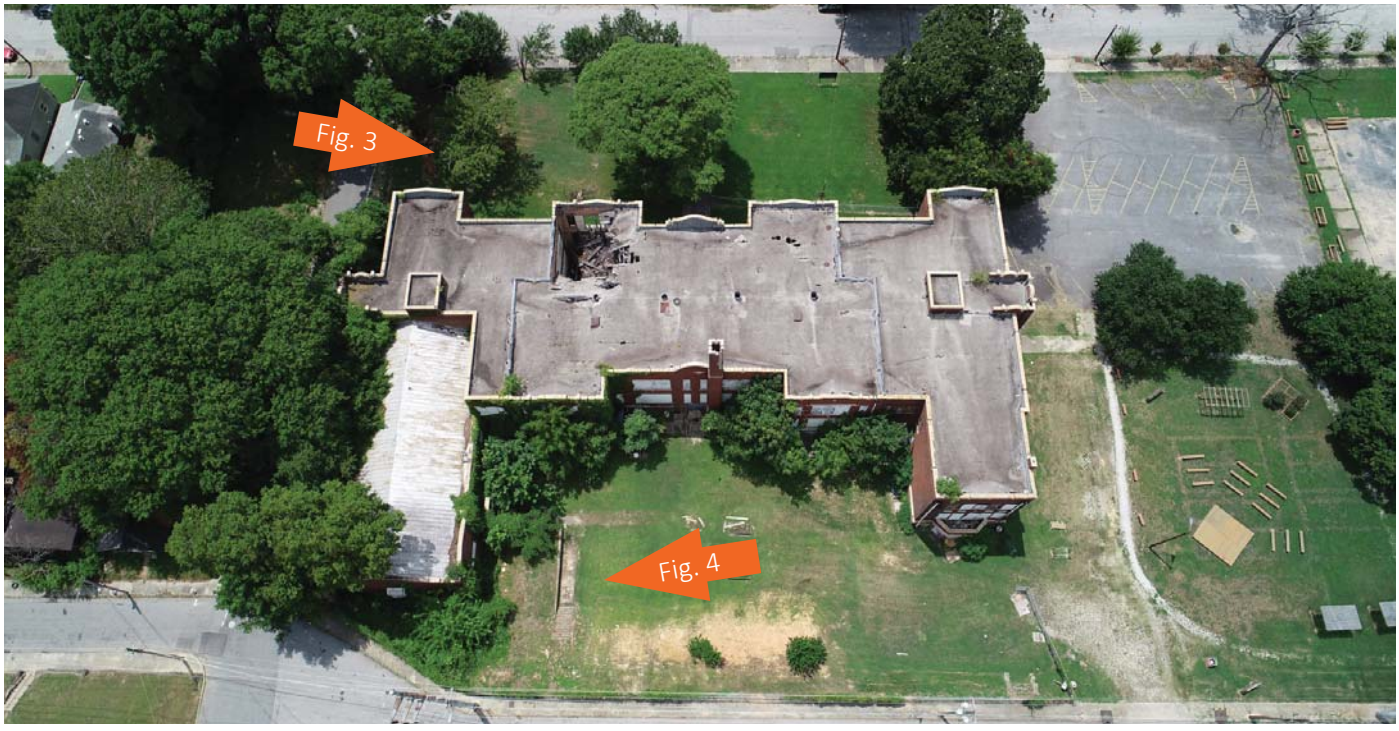

Figure 2. Aeriel Site Photo

Figure 3. West Site Photo

Figure 4. East Site Photo

Foundation

The foundations and footings were not accessible for observation. Based on the construction types of the central mass and later additions, it is assumed that the central 1911 building's load bearing perimeter and interior walls are supported by a brick foundation with spread footings and that the later concrete frame additions have concrete foundations supporting columns.

Framing

The 1911 center mass is composed of load-bearing multi-wythe brick walls with wood joists spanning between and providing the structure for floors. The roof framing is a low-slope, wood, post and rafter system with a wood board deck.

The concrete 1923 wings are framed with reinforced concrete columns and beams with one way ribbed concrete floor and roof slabs.

The auditorium's load-bearing multi-wythe brick walls support steel scissor or parallel bar roof trusses (or similar design to support a two-slope suspended ceiling). The auditorium floor is wood framed over a dirt crawl space.

Later modifications of unknown age inserted steel beams (illustrated in red in the images to the right) to compensate for removed walls and in several locations installed round steel columns to provide supplemental mid-span span support in larger basement spaces.

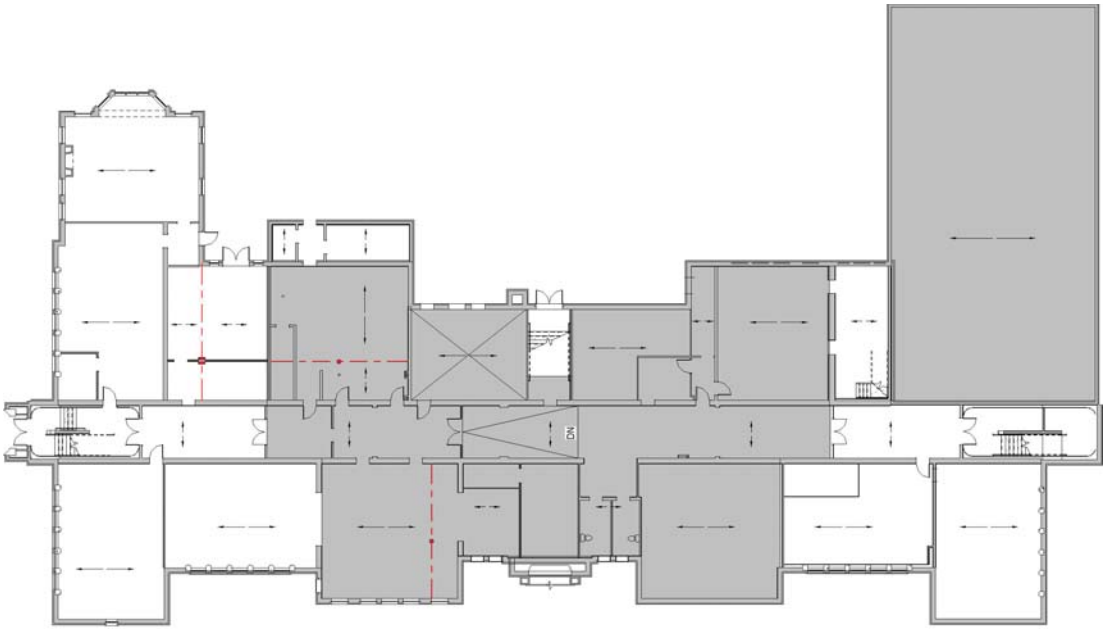

Figure 5. Basement Framing Plan

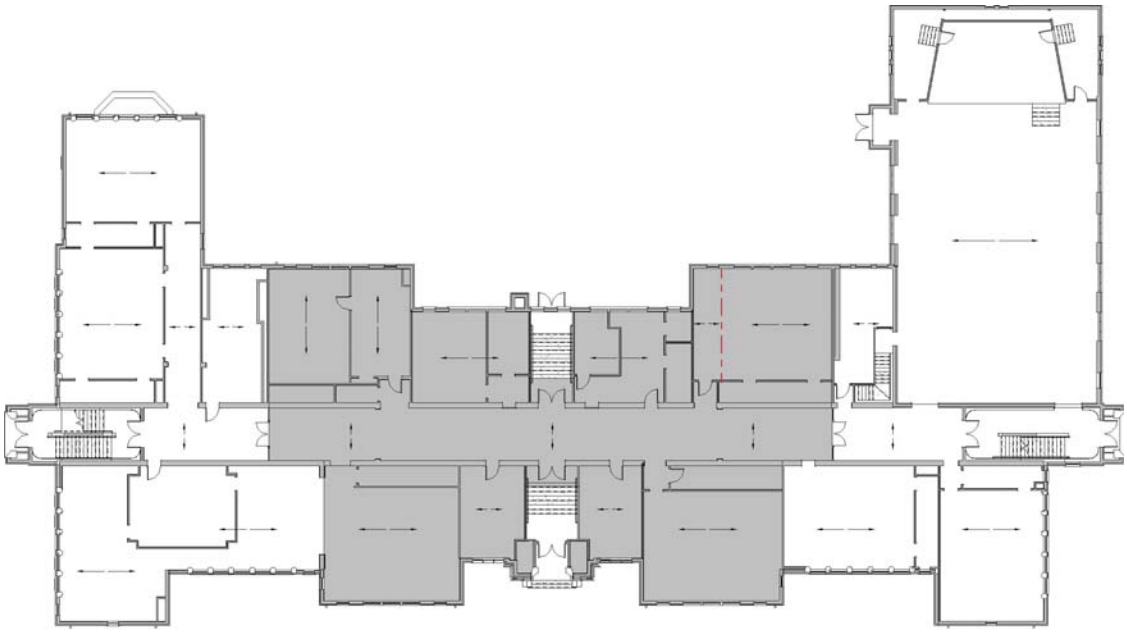

Figure 6. First Floor Framing Plan

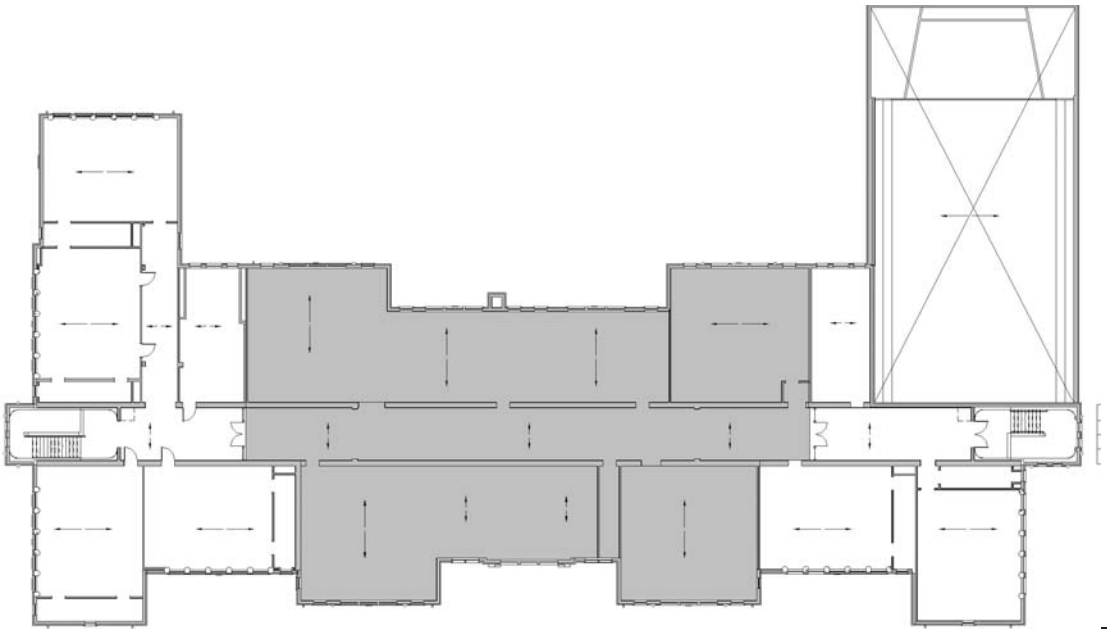

Figure 7. Second Floor Framing Plan

Exterior and Load-Bearing Masonry Walls

The exterior and/or load-bearing walls of the 1911 central mass and the auditorium are composed of three wythes of common red brick and the 1923 wings of a combination of common red brick and structural clay tile. Typically, the walls of the 1923 wings feature brick at the exterior face and around openings and hollow clay tile everywhere else. The base of the exterior walls of the central mass and two wings projects an additional wythe at the first floor level.

The exterior brickwork across the entire building is set in five courses of running bond between single courses of alternating headers and stretchers (Flemmish bond), with the headers being slightly darker in color than the stretchers. Stringcourses of soldier bond brick wrap the building at the first floor level and below the first floor windowsills. A string course of alternating stacks of rowlock and soldier brick delineates the roof line.

The exterior masonry also includes terra cotta elements; multi-unit window sills, a string course drip molding over the soldier bricks of the projecting base, coping and crenelation, label molding over windows above entries, and several decorative features set into the brick walls, including shield and scrolls, an owl, bosses, and diamonds.

A non-historic, basement level addition is appended onto the east elevation of the central mass. The addition's walls are concrete block faced in red brick.

A portion of wall on the east side of the north elevation at the basement level has been rebuilt with non-matching red brick and a gray mortar. Above this area of wall is a chimney that projects a few inches from the wall face and interior to this area is a brick fireplace. There are also several bricked in wall vents on the west elevation, a former doorway on the north elevation of the south wing, and former windows on the east elevation that are infilled with contrasting bright red brick.

Figure 10. Infill brick on north elevation.

Figure 8. West Elevation

Figure 9. East Elevation

Roof

There are three distinct roof types.

The central mass (1911 section) of the building has low slope wood joist roof framing, with built up asphalt roofing over a wood board decking. The roof slopes towards exterior walls where scuppers are located in a low masonry parapet. This parapet surrounds the roof and has terracotta coping.

The 1923 wings of the building have a concrete roof structure, with built up asphalt roofing. Similar to the 1911 section of the building, these roofs slope towards exterior parapet walls where scuppers are located. The low masonry parapet continues around this section of the building as well and is also coped with terra cotta. Where the 1911 central mass abuts the 1923 additions, the original parapet remains and is covered with roofing material.

Roofing is a built up bituminous material.

The Auditorium has a metal standing seam gable roof, with low parapet walls and a gypsum deck.

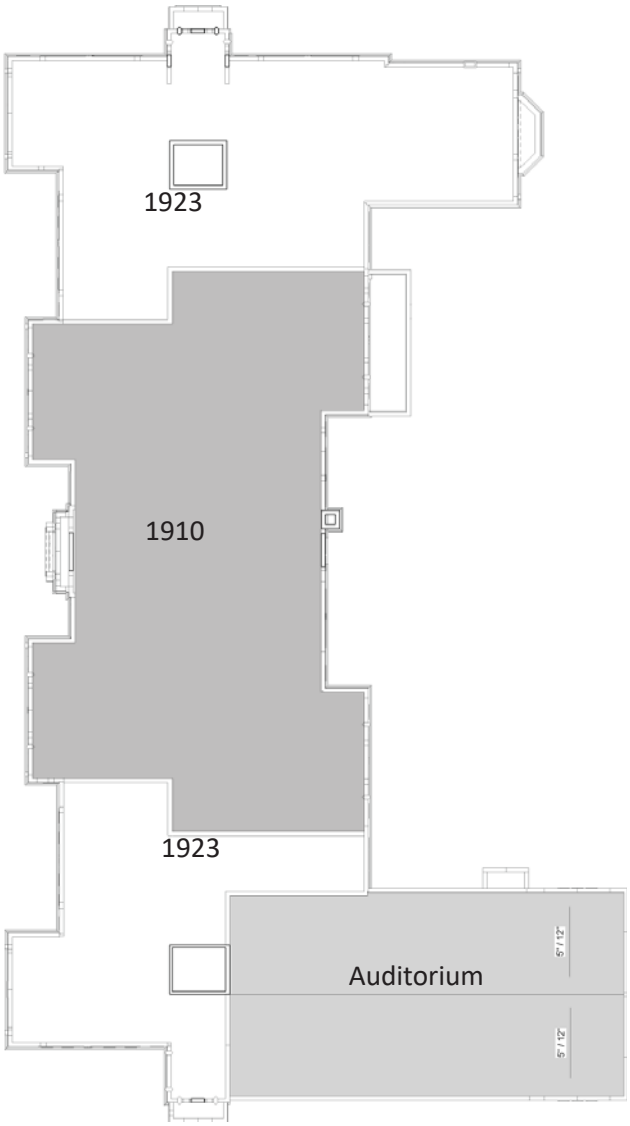

Figure 12. Plan view of roof types

Figure 13. Detail of decorative terra cotta coping.

Figure 14. Detail of connection between auditorium roof and masonry walls.

Figure 11. View of Auditorium roof with portions of the south wing and main building to the right.

Drainage

Roof drainage is provided by scuppers at main roof locations. Lower, vestibule roofs drain from coffer channels in thecrenelations.

Collector heads gather water flow from scuppers and direct it to downspouts that terminate in cast iron or modern boots. The condition of the underground drainage is not known.

Some components of the exisitng drainage system are likely historic and include ornate collector heads, ivy-leaf downspout straps, and cast iron downspouts and boots.

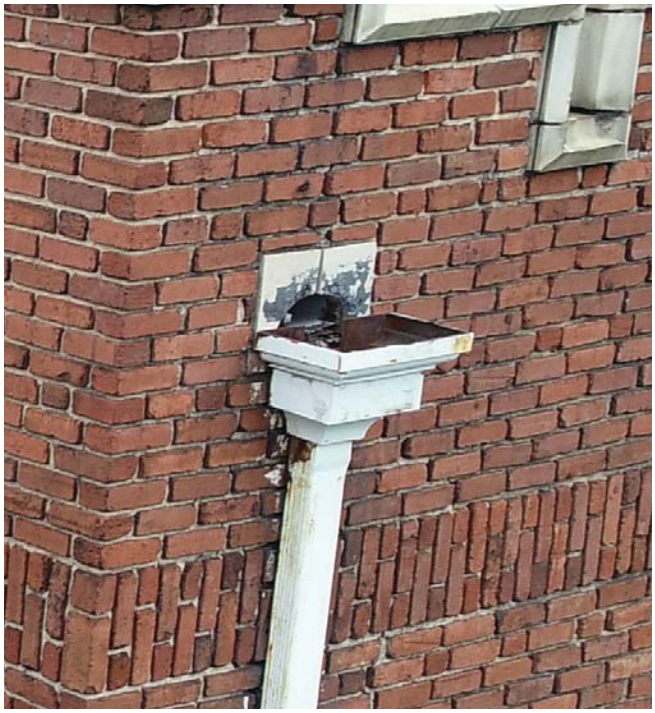

Figure 16. Scupper, collector head, and downspout on the 1911 portion of the building.

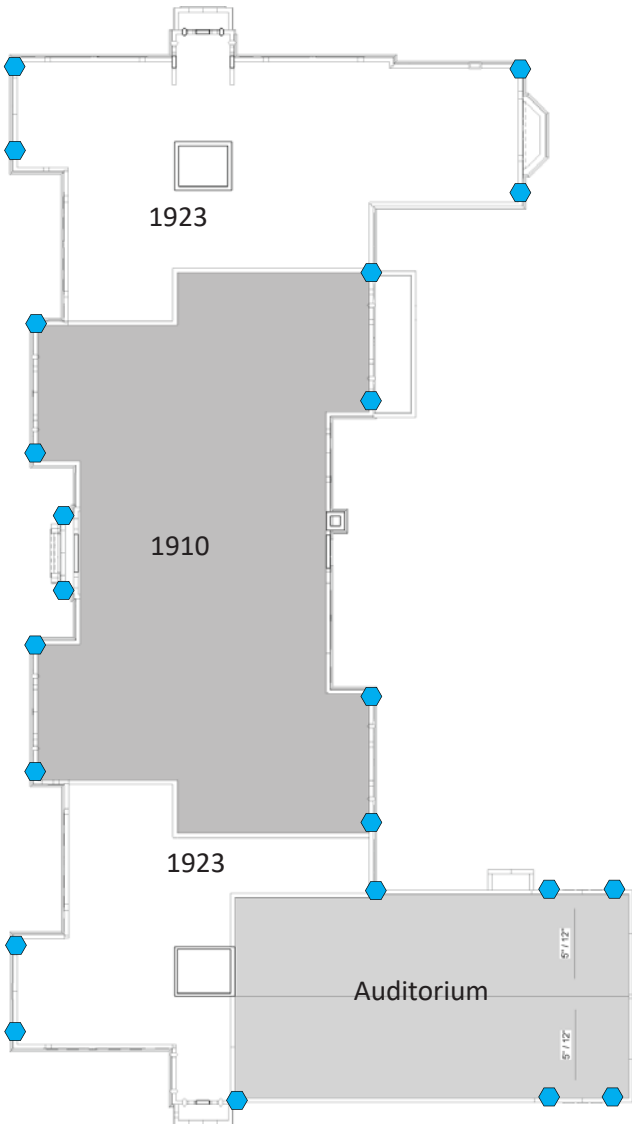

Figure 15. Plan view of roof drainage indicated in blue.

Figure 17. Cast iron boot with a piece of modern downspout in front. The boot has a Philadelphia maker's mark.

Figure 18. Rainwater drains from the vestibule roof via copper channels in the crenelations on the right and left.

Interior Walls

Interior partition walls in the 1911 portion of the building are wood framed. Interior walls in the wings are composed of clay tile at major partitions between stairs, classrooms, corridor, and closets. Other interior walls framing chases and mechanical niches are wood framed.

Historic flat plaster is the primary wall finish throughout the building. Where there are masonry walls, the plaster is directly adhered; where the walls are wood framed, wood lath is used. Where there are dados for chalk boards, the plaster appears to have been left unfinished. Columns between windows are also furred out and finished in plaster. In the 1911 portion these columns are tapered and in the 1923 wings they are heavily chamfered

Restrooms on all floors and a former locker room and kitchen/cafeteria rooms in the basement have a white subway tile wainscoting, and plaster above. The two west-facing rooms on the first floor that flank the west entrance stair have crown molding.

The auditorium features a decorative plaster proscenium arch with Gothic features.

Concrete masonry unit (CMU) walls have been constructed in bathrooms to provide additional chases for plumbing. In some areas, historic marble panels are visible where the CMU has been damaged.

Figure 19. Detail of proscenium arch.

Figure 21. Typical window column detail at wings.

Figure 20. Typical flat plaster walls in 1923 wing classroom.

Figure 22. A more typical wall and plaster condition found in the 1911 section.

Floors

Floor finishes consist of terrazzo, 12x12 tiles, 9x9 tiles, hardwood, and concrete.

Terrazzo floors are located in the 1923 wings of the building at the hallways and stairs. Where terrazzo is present there are coved transitions to a 6-inch terrazzo base. The terrazzo is two-toned, with a 9" border in red and the field in beige.

The balance of floors on the first and second level are tongue and groove wood boards on wood sub-floor and are covered in a variety of non-historic finishes, including 12x12 resilient tile or 9x9 tile that are likely vinyl-asbestos (VAT). Many of the 12x12 tiles cover 9x9 tiles.

The basement level of the building has an exposed slab on grade concrete floor, except for the 1923 wing hallways, which have terrazzo floors. In rooms and corridors with concrete floors, there is also a 6-inch concrete base.

The auditorium features tongue and groove wood floors covered in plywood and 12x12 tiles. The raised stage of the auditorium is one of the few locations where there is an intact, exposed tongue and groove wood floor.

Ceilings

Throughout the building are flat plaster ceilings. In the 1911 portion, the plaster is adhered to wood lath attached to the floor structure and in the 1923 portion the plaster is adhered to expanded metal lath attached to a metal grid that is affixed to the floor structure. Ceilings on the third floor are suspended 4 to 5-feet from the roof structure.

Throughout the building are remnants of a non-historic suspended 2-foot by 2-foot grid ceiling system, including in the central corridors where it is mostly intact.

The two-slope auditorium ceiling is composed of a 4-foot by 4-foot metal channel grid ceiling with acoustical ceiling tiles.

Figure 23. Detail of flooring showing highly deteriorated tongue and groove wood flooring that was below plywood, 9x9 VAT, and 12x12 resilient tile.

Windows

Windows located in the 1911 section of the building are wood and windows located at the 1923 section, including in the auditorium, are steel.

There are no surviving wood sash and few remaining wood frames. Two examples of surviving wood frames are divided into six parts with three 1/3rd height openings above three 2/3rd height openings. The mullions are relatively large. There are also extant frames of three-part arched transom windows over the east and west entries.

At classrooms in the wings, there are two versions of three-part steel windows that are either three or two lites wide. The larger are composed of a six-lite awning sash, three fixed lites, and another six lite awning sash. The smaller are similar but with a four:two:four composition. There are also smaller windows on the north and south walls that are composed of two parts: four fixed lites over a four-lite awning sash.

The Auditorium has large six-part arched steel windows. The upper portion of the window has three parts, each with four fixed lites. The lower portion is composed of three parts each with six fixed lites over four-lite awning sashes on the left and right and a four fixed lites in the center. A similarly composed arched transom is over the north entry door to the auditorium, composed of the three part upper portion above three parts each with two fixed lites.

There are boarded-up window openings in corridor walls, but no extant frames. They occur in groupings of two and three along the main north/south corridor on the second and third floors. There are 18 in total, most of which are located on the West wall of the corridor. They align with the heights of the door transoms.

There are two decorative metal grilles in the basement adjacent to east, under-stair mechanical space.

There is a small, six-lite fixed sash wood window in a partition wall on the first floor, within the east facing room that is directly south of the east stair.

There are also punched openings below some of the windows on the east and west elevations. These correspond to the recessed radiator coves and are currently boarded up. There was likely a grille of some kind in the opening, but these are no longer extant.

Figure 24. Arched wood windows above west entry door.

Figure 25. Wood window frame at first floor of 1911 building.

Figure 26. Steel windows in auditorium.

Figure 27. Boarded up windows facing corridor.

Figure 28. One-off six-lite interior window.

Figure 29. Typical two lite wide steel window.

Figure 30. Typical stair tower steel windows.

Figure 31. Metal grille.

Figure 32. Portion of a typical bay of classroom steel windows.

Exterior Doors

There are four main entrances into the building that originally had double doors. These are centered on the north, south, east, and west facades and are protected by a projecting vestibule. The north, south, and west entrances have arched transom windows. The Auditorium has an additional projecting double door entrance on its northern wall.

There are also 4 exterior doors that directly access rooms in the basement, all located on the east side of the building. One of these doors is a story below the basement floor, and accesses the boiler room floor. There is evidence of two additional exterior doors that have been bricked in.

Figure 33. South Entrance.

Figure 34. East entrance.

Interior Doors

Typical interior doors are solid wood block core with a wood veneer. Two historic configurations are present in the building: Type A; three side by side lites in the top third of the door above two side by side panels, or Type B; one large lite above two side by side panels. Non-historic, flush panel doors are also present in the building. In most cases doors have been removed from their hinges and discarded nearby or are missing completely.

Door frames are steel and at most classrooms have a single lite transom above. Transom sash are entirely missing and in most cases boarded up. Evidence and a few extant examples of hardware suggest that doors had simple brass estucheon plates and flat faced brass knobs, with mortised locks.

There are steel door and window assemblies with double doors in corridors at the transition between the 1911 and 1923 portions of building. The assemblies span the corridor from floor to ceiling. At the basement level, these are six part assemblies with a bank of two-lite, five-lite, and two-lite windows above double doors flanked by sidelights. On the first and second floors, these are seven part assemblies with a bank of four, six-lite fixed windows above double doors flanked by sidelights. The doors and sidelights are composed of one lite over a solid panel.

There are also steel double door assemblies at the north and south stair halls on all levels. The doors have one large lite above a single panel and are framed in a flat plaster partition wall.

Figure 35. Steel door and window corridor partitions at first floor.

There is a non-historic basement corridor partition with six-lite double-doors framed in a flat plaster wall.

Millwork

Classrooms throughout and corridors in the 1911 portion have 9-1/8” three-part wood base trim. Corridors on the first and second floor also have 5-1/2” wood trim at approximately 75” o.c. above finished floor level. First floor hallways have non-historic wood-composite chair rail wall guards likely installed during the building’s short use as a neighborhood clinic. Closets in classrooms have two or three 5-1/2” wood rails where coat hooks were located.

Figure 36. Classroom Closet

All classrooms feature a metal framed fiber-composite wall panel on the corridor-facing and interior partition walls, and in some instances with a white board or modern chalkboard. Classrooms also feature a built-in wood cabinet recessed into a niche in the masonry walls.

Figure 37. Chalk board and built-in cabinet

Figure 38. Millwork below classroom windows

Windows and doors are un-cased. Doorways in the 1911 section have wood jambs. Most windows have a deep, sloped sill, with three-part stool, except for the window banks in the 1923 classrooms which feature a continuous sill and one-part stool. Below these windows are recesses for steam-heat radiators alternating with wood panel dados framed in wood molding. In most cases, the recesses have been paneled over with fiber composite panels. A similar radiator recess is present below windows in the auditorium, with only one surviving example retaining a complex wood molding frame.

The north and south stairs have two 2” round, wood handrails and a molded wood cap on the plaster faced string wall (39-42” in height).

Figure 39. Stair millwork.

Figure 40. Radiator recess in Auditorium.

CONDITION ASSESSMENT
&
CONCEPTUAL DESIGN
SCOPE OF WORK

Site

Accessibility to the site and building is limited by topography. Stairs, either up to the first floor or down to the basement, are at all entrances to the building. Site stairs also provide access from Brawley Drive. The sloping sidewalk along Pelham Street is directly adjacent to the south entrance and also provides challenges to accessibility design. Currently, a pipe guardrail and low concrete block knee wall is in place between the sidewalk and a small exterior vestibule that is level with the first floor.

Parking will be a determining factor in the final site design as well. It is anticipated that a limited asphalt area and approach for ADA parking and loading will be located adjacent to the building's east elevation. The remainder of required on-site parking can be achieved in an asphalt area directly north of the building.

There is heavy vegetation growing adjacent to, and in some cases growing on the building. All vegetation growing on the building and within 10 feet should be removed. Several large trees on the east lawn and north of the building should be retained.

It is anticipated that some site re-grading and remediation will be necessary to provide accessibility, appropriate rainwater management, and improve aesthetic conditions. Retaining walls, site walls, and programmed landscape features like play areas, natural spaces, assembly spaces (food truck courts, amphitheater, pavilion, etc.), and other amenities are also anticipated. Developing a landscape plan to supplement the current building analysis would provide a specific and quantifiable program. Current estimates for this work will assume minimal sitework to achieve a stable, safe, and aesthetic condition and will be based on site work costs for similar projects and include an owner's contingency for site design.

Figure 41. Pelham Street entrance.

Conceptual Design Scope:

- Remove vegetation from around and on the building.
- Construct new retaining walls along Pelham and Brawley sides of site.
- Reconstruct built-up, debris-filled slopes and replace with appropriate fill soil.
- Establish owner's contingency for plantings, landscaping, and site furniture.
- New Asphalt and striping for parking areas.
- New walkways and paths
- Repair or replace concrete steps at entrances

General Building Conditions

There is a significant amount of debris from failing building components and abandoned property. Hazardous materials and conditions are also present. Loss of structure has likely destabilized masonry walls and will require shoring and bracing.

Conceptual Design Scope:

- Provide structural analysis and shoring/bracing plan prior to demolition.
- Remove debris.
- Conduct hazardous material abatement.

Figure 42. Debris piled up in a basement room.

Foundation

The are no current concerns with the foundations. Generally, the interior of the building is very wet. Much of this is the result of the massive holes in the roof. Many of the holes extend all the way to the basement. As such, the basement is wet and very musty. Once the building envelope is protected from rainwater infiltration, it will be possible to assess with certainty whether there are issues with groundwater penetration into interior spaces. Experience with mass masonry buildings with below-grade conditions tells us that there will be moisture and humidity issues (severity unknown until further study) but that these issues can be managed with appropriate design and materials specifications in addition to a properly designed HVAC and dehumidification system.

Conceptual Design Scope:

- Following the drying-in of the building, monitor moisture content of walls and slab.
- Provide appropriately designed dehumidification system for basement level.

Figure 43. Some standing water was observed in the mechanical sub-basement.

Framing

Existing condition drawings in the appendices of this report show the extent and location of damage and failure to walls, ceilings, floors, and roofs.

The wood framing in the central mass is severely water damaged. Significant portions of the wood roof structure have collapsed, taking with them weakened and water damaged second and first floor wood structure. Much of the rest of the wood structure has been significantly weakened causing many joists to fail at their connection point with the masonry walls or to sag and soften along their span. Where catastrophic failure to the wood frame has occurred, corresponding conditions in the load-bearing brick walls were observed. These include bowing and cracking due to loss of lateral bracing.

Cracking in the concrete slabs was observed in the roof slab at the second floor along the edge of ribbed beams. In some cases these cracks are allowing water from the roof to infiltrate the building. Otherwise, concrete slabs, columns, and beams, showed little sign of damage with only limited areas showing water damage and rusting reinforcing bar.

The steel truss framing of the auditorium roof was not accessible. Based on interior observations of water damage and aerial drone imagery, it is likely that significantly rusted steel will be found at bearing points near the top of the masonry wall. Failed flashing that runs along the interior edge of the parapet walls appears to be the source of the water.

Conceptual Design Scope:

- Most if not all of the wood framing may require replacement. The following should occur:
  - Structural engineering to provide bracing and shoring plan.
  - Limited demolition and removal of visibly failed wood structure and associated features (wood studs, furring, plaster walls, wood flooring and sub-flooring, etc.).
  - Testing and tagging of remaining wood structure and associated features for retention in place or salvage.
  - Reassess structural bracing and shoring.
  - Demolition and removal of remaining unsalvageable wood structure and associated features.
  - Construction of new wood structure.
- Repair concrete frame at identified locations and assess for structural concerns.
  - Demolish all non-historic, suspended ceilings to assess concrete frame.
  - Demolish roofing to assess concrete roof deck for evidence of structural issues.
  - Repair concrete as necessary.
- Repair steel truss at auditorium.
  - Remove existing roofing and assess condition of steel trusses.
  - Remove rust, repair in-kind as needed, and re-coat.
- Repair or replace supplemental steel framing (beams and columns).

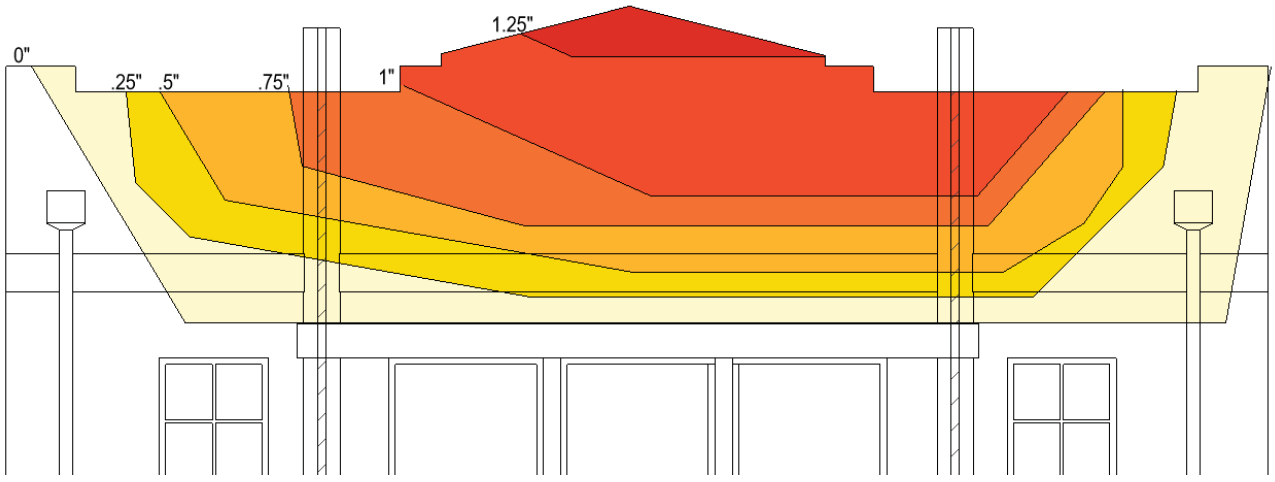

Figure 44. A heat map of the west gable wall showing the degree to which the masonry is out of plumb.

Figure 45. Wood Framing structural failure, Image also shows supplemental steel beam and column.

Figure 46. Unfortunately typical condition of the wood joists.

Exterior and Load-Bearing Masonry Walls

Step cracks were observed in the walls of the west elevation at several locations of the north and south wings. Typical cracks extend at 45-degree angles from the top corner of either a first or second floor window or the projecting base to the opposite bottom corner of the window above. Cracks typically are no wider than ½-inch and mostly follow mortar joints, but have led to cracked brick or terra cotta units.

Environmental and biological discoloration and soiling is present throughout the exterior masonry. Heavier discoloration and soiling occurs at scuppers, collector boxes, and downspouts or adjacent to overgrown vegetation.

Vegetation, including sizable woody species, is growing in walls and other building elements and is impacting the integrity of the walls. Most notably, significant portions of the brick cladding on the non-historic addition on the east elevation were pried off due to root growth between the brick veneer and concrete block core. In other areas, vegetation was too dense to observe the wall condition completely.

Veneer brick has failed and collapsed at the top ten feet (approximate) of a four-story exterior brick chimney on the east elevation, likely originally built to serve a coal-burning boiler. The upper section of chimney was altered or extended as some point in time and the work did not adequately tie in the face brick to the core brick. The face brick of this upper section is in a running bond pattern, as opposed to the lower brick of the chimney, which matches the remainder of the building's a Flemish bond every five courses. There is also no evidence of brick ties in the collapsed area.

About 20% of the terra cotta units are damaged. Typical damage includes spalled areas at projecting edges and corners and through-cracks near mortared joints or associated with adjacent wall cracks. The core material of the terra cotta is a similar color to the glaze, so the damaged areas are not always immediately visible. The core material is, however, more porous and is more prone to biological discoloration and exposed areas invite accelerated decay.

Mortar is weathered but still durable and with few voids or cracks in the joints. Mortar is typically raked or weathered back about a half-inch from the wall plane. All head and bed masonry joints should be tuck-pointed with an appropriately formulated mortar to match existing historic mortar in color, texture, permeability, strength, and workmanship.

Conceptual Design Scope:

- Remove vegetation from walls, gutters, roofs, and anywhere within 10 feet of a building element.
- Demolish and remove non-historic concrete block addition.
- Conduct mortar analysis to characterize existing historic mortar (mix design, strength, color, texture).
- Tuck-point 25% of the masonry joints.
- Repair terra cotta elements .
  - Patch terra cotta elements adjacent to primary building entries.
  - Coat spalled terra cotta with appropriate material designed for historic terra cotta at sky-facing locations and where spalls are visible from a 20-foot viewing distance.
  - Patch spalled terra cotta where hollow core is exposed.
  - Stabilize cracked and displaced terra cotta elements.
  - Install sky-facing joint detail at terra cotta window sill units and coping joints.

Figure 47. Vegetation growth on exterior walls.

Figure 48. Brick Chimney showing failure of face brick.

Figure 49. Environmental and biological discoloration near downspouts.

Figure 50. Non-Historic concrete block addition with tree roots.

Figure 51. Isolated step cracking on west elevation.

Figure 52. Typical terracotta damage.

Roof and Drainage

All roofing is well beyond its serviceable life and is in critical failure. The wood framed roof has significant structural failure and has collapsed in several areas. The concrete roof is stable, but cracks along rib beams were observed from interior second floor spaces. Water is entering the building through some of these cracks and at the intersection of the roof and parapet, especially at low points near scuppers. The Auditorium roof is failing and leaking badly along the side walls.

Conceptual Design Scope:

- Structural Assessment for all roofs
  - Potential redesign to accommodate assembly use at roof level. This work would require structural redesign of roof framing and potentially require additional support at load-bearing walls and foundation system.
- Remove all roofing.
- Remove all wood roof structure.
- Patch and repair concrete roof deck.
- Provide new roof structure at central mass.
- Install new insulation and roofing throughout.
- Repair historic or Install new roof drainage and connect downspouts to appropriately direct water away from building.
- Investigate and repair below-ground drainage.

Figure 53. Terracotta parapet with built-up flashing

Figure 54. Auditorium roof at intersection with the south wing.

Figure 55. Overall view of the roofs.

Figure 56. Typical condition of corridor walls.

Figure 57. Non-historic walls to be removed.

Figure 58. Classroom wall showing failed plaster next to stable plaster. A vertical joint will be cut at he stable plaster.

Interior Walls

See attached drawings that show the general condition of walls and wall finishes.

Throughout the building, 50 to 75% of the plaster is damaged or missing. Significant sustained moisture has deteriorated additional plaster likely beyond the point of repair. The extent of repairable plaster is likely very low.

Conceptual Design Scope:

- Remove failed and failing plaster.
  - Where intact plaster remains, determine logical vertical and horizontal cut lines to provide a stable joint between existing and new work.
- Remove non-historic walls.
- Where plaster has been removed or has been lost to failure, install furring and new gypsum board wall finishes to match historic plaster depth and texture.
- Where plaster is retained, repair using in-kind material.
  - Provide plaster analysis.
- Prepare and paint all interior plaster walls.

Flooring

Terrazzo floors in the concrete framed section of the building are in stable condition, though the amount of debris and sediment prevented a comprehensive assessment. There are likely some cracks and minor damage as is typical from experience. Terrazzo is an eminently repairable material however.

Resilient tile flooring is not considered a character-defining feature and is typically in non-repairable condition. It is also very likely that there is asbestos in the 9x9 tiles and mastic.

Original tongue and groove hardwood floors in the 1911 portion of the building are not salvageable. Years of being covered in layers of modern flooring and a continuous saturated condition has rotted the wood flooring (see Fig. 21).

Concrete slab floors in the basement and in the classrooms of the north and south wings is stable. Some patching and leveling will be required.

Conceptual Design Scope:

- Document and remove asbestos-containing tile flooring during hazardous material abatement phase.
- Remove all unsalvageable wood flooring.
- Repair terrazzo.
  - See section on stairs for approach to treatment of terrazzo stairs.
- Repair concrete slab floors.
- Install new flooring to match historic condition.

Figure 62. Two-tone terrazzo floors.

Figure 59. 9x9 VAT flooring over wood floors in the corridor.

Figure 60. Exposed wood flooring in the auditorium.

Figure 61. Concrete floors in the wings are generally in stable condition.

Ceilings

Plaster ceiling conditions vary throughout the building. 80-90% of historic plaster ceilings are missing or damaged in the basement. 60-70% of plaster ceilings are missing or damaged on the first and second floors.

The non-historic suspended ceilings and metal grid have been partially demolished or are failing.

Conceptual Scope:

- Repair intact plaster ceilings using in-kind materials.
- Remove all non-historic suspended grid ceilings and failed plaster ceilings.
- Following structural and mechanical work, install new gypsum board ceilings at or near historic ceiling level.
- Auditorium ceiling type to be determined based on historic and physical evidence.

Figure 63. Plaster ceiling on expanded metal lath.

Figure 67. Failed plaster on wood lath ceiling above an intact wood window frame.

Figure 64. Grid ceiling

Figure 66. Removed plaster ceiling on wood lath above a non-historic suspended grid ceiling.

Figure 65. Auditorium Ceiling

Windows

All wood window sash are missing. There are two extant wood frames with the remaining balance reduced to just the brick mold.

Most of the steel window sash and frames remain. All steel elements are rusting, with those at the basement and first floor, especially where in close proximity to vegetation, in more severe condition. More than half of all glass panes are either broken or missing. Almost all of the window openings are boarded up with plywood.

Approximately 10% of the steel angle lintels are severely rusted and will require replacement. The remainder can be repaired in situ.

Interior transom and corridor windows are missing and openings boarded up with plywood.

Conceptual Scope:

- Remove and dispose of plywood window coverings.
- Fabricate new wood windows and frames as needed based on extant examples and historic imagery.
- Restore existing steel windows. Replace severely rusted components or assemblies.
- Seal all joints between windows and masonry.
- Paint all windows with a high-performance coating.

Figure 68. One of the few rusted window lintels that may need to be replaced.

Figure 69. Window Exterior Sill

Figure 70. Typical steel classroom window bank.

Figure 71. Steel windows at stair towers.

Figure 73. Auditorium windows.

Figure 74. Wood window frame.

Figure 72. Interior transom windows

Figure 75. Steel windows in the bay window at the basement level.

Doors

Many of the exterior doors are missing and boarded up with plywood. Extant doors are non-historic.

Most interior doors are in poor condition due to their construction type and the extended amount of time they have been exposed to moisture.

The steel and glass corridor partitions are severely rusted and missing components.

Conceptual Scope:

- Document, remove, and dispose of severely deteriorated or damaged doors.
- Retain and restore wood doors, frames, jambs, and casings where extant.
- Fabricate new interior doors based on existing Type A and B doors.
- Fabricate new exterior doors based on historic images.
- Clean and refinish metal door frames and metal corridor partitions.
- Reglaze as needed metal corridor partitions and transom lites.

Figure 76. Corridor partition doors.

Figure 77. Missing doors as west entrance to the building.

Figure 79. Extant Type B door with boarded up transom lite.

Figure 78. Non-historic interior flush door.

Stairs & Vertical Circulation

Terrazzo stairs at the north and south ends of the building appear to be in fair condition. The nosing is chipped on most of the treads. Some of the handrails are missing.

The wood stairs at the east and west entrances will need to be replaced in kind due to loss of structure.

Concrete stairs leading from the auditorium to the basement level are stable, but will require new tread and nosings.

Many handrails and guardrails are missing and those that are extant do not meet code for height. New handrails and supplemental elements for low guardrails will be required.

There is no existing elevator in the building.

Conceptual Scope:

- Repair terrazzo stairs.
  - Install new metal nosing and tread covers.
  - Replicate and install new handrails.
  - Retrofit guardrails to add height.
- Remove and replace in-kind wood stairs at east and west entrances.
  - Install new hand and guardrail as needed.
- Repair concrete stairs.
  - Replicate and install new handrails.
- Design and install new four-stop elevator. See drawings for proposed location.

Figure 81. Concrete stairs leading to Auditorium.

Figure 80. North stairs

Figure 82. Old Mechanical Ducts in Ceiling at Third Floor

Figure 83. Old Plumbing in Basement

Figure 84. Boiler Room

Mechanical, Plumbing, Electrical & Other Systems

All systems are obsolete and will require new design and installation.

Conceptual Scope:

- Design and install all new systems.
  - Heating, ventilation, and air conditioning
  - Basement dehumidification
  - Electrical
  - Plumbing (see concept drawings for restroom locations).
  - Information Technology
  - Security
  - Fire Protection
  - Commercial Kitchen
  - Audio Visual
  - Lighting

Figure 85. Obsolete Fluorescent lighting.

New Materials in Existing Building

New Automatic sprinkler system.

Fire Extinguishers

- Fire-protection cabinets for fire extinguishers – stainless steel cabinet doors.

Fire Curtain

- 2 hour rated fire curtain, location indicated in drawings.

Downpouts/Downspout boots

Door Hardware

- Doors, as tagged in drawings, shall be on hold-open hardware (HO), interconnected with fire alarm, to allow doors to typically be in the open position.
- ADA assist door operators at entry doors – both sides.

New Flooring

- New vinyl tile at concrete slabs in former classrooms.
- Walk off carpet tile at every entry.
- Sealant over existing concrete slab at basement

New Interior Walls

- Painted 5/8” gypsum board on metal studs at all new interior walls. 1- hr rated and smoke barrier walls are indicated in the drawings. Moisture-resistant gypsum board in wet areas.
- All interior walls to be constructed to structure (for fire resistance and acoustic rating), with exception only for return air needs.
- 4 ft high ceramic tile wainscoting over cementitious back board throughout in restrooms.
- Interior Glass storefront walls (floor to ceiling) in locations shown in the drawings, gyp board stud walls to structure above ceiling with exception only for return air needs.

Elevator and Stairs

- New machineless room elevator, sized for stretcher. Five stops, with front and rear openings.
- New metal pan stairs from first floor to new roof (optional).

Restrooms

- Cambria engineered quartz countertops/splashes.
- Solid surface partitions.
- Grab bars: Stainless steel ADA- compliant grab bars in ADA stalls.

First Floor Lobby

- New stairs and landing with guard rail.

Signage

- Code required signage.

AV:

- Event Space – projectors and sound system TBD in subsequent design phase.
- Classrooms – projectors TBD in subsequent design phase.

New Materials in Additions

Roof Terrace:

- Wood joist decking over adjustable pedestals at roof terrace portion of roof only, location indicated in drawings.
- Stainless Steel perforated metal railing at all edges of roof terrace.

Roof Structures:

- Exterior Walls: Fiber cement board and batten siding, over metal support framing and polyisocyanurate insulation as required by energy code, weather resistant barrier, 5/8" exterior gypsum sheathing, and cold form metal wall studs (supplier engineered).
- Curtainwall located on drawings. 2 ½" x 7" thermally broken aluminum curtain wall frame. 1" insulated vision glass. Aluminum and glass entry doors – Medium style.
- Ceilings: 2' x 2' ACT ceiling.
- Floors: Vinyl Tile to match classroom replacement tiles.
- Metal formed copings, with concealed continuous hold-down cleats at both legs. Factory fabricated corners.
- Roof: PVC single ply membrane roofing system, over polyisocyanurate insulation as required by energy code.

East Entry Vestibule:

- Exterior Walls: Composite metal panels over metal support framing and polyisocyanurate insulation as required by energy code, weather resistant barrier, 5/8" exterior gypsum sheathing, and cold form metal wall studs (supplier engineered).
- Curtainwall located on drawings. 2 ½" x 7" thermally broken aluminum curtain wall frame. 1" insulated vision glass. Aluminum and glass entry doors – Medium style.
- Ceiling: Gypsum board ceiling
- Floor: Polished concrete on grade. Walk off carpet tile at entry door.oof: PVC single ply membrane roofing system, over polyisocyanurate insulation as required by energy code.